3A: The Health of the Puget Sound & Georgia Basin Ecosystem

Questions & Answers

Q: Can you explain what was measured as "shoreline alteration"?

Redman: The study was done by the Department of Natural Resources. I'm not sure exactly, but I think it includes physical alterations like bulkheads and piers. I can put you in touch with Department of Natural Resources staff if you want to know specifically what was included.

Comment: They have posters in the next room, don't they, that deal with that?

Redman: I'm not sure it contains that detail, though.

Q: You said there had been trends in PSAMP fish. Could you explain a little bit more about that?

Redman: I should have explained the acronym. PSAMP is Puget Sound Ambient Monitoring Program. Actually, Jim works in a group that looks at contaminants and contaminant effects in fish, and the Department of Ecology looks at contaminants in sediment. From those data sets, the Ambient Monitoring Program collected fish and sediments, we've seen no upward or downward trends in concentrations in Puget Sound over the period of 1989 through 1995 or 1996. PSAMP's fish sampling primarily relies on English sole for the long-term work.

Q: What percentage increase was seen in rates of liver lesions?

Redman: I don't have the data to answer that. However, in order for the difference to be statistically significant, I think it's probably got to be a pretty good number. I'd guess 20 percent or more difference over that time period. Jim?

West: But the overall levels in the Strait of Georgia were not high, but there was a trend. They were low levels but they were changing. Whereas in Elliott Bay, I think, the absolute values were much higher, so it's a little bit deceiving. Sandie is going to talk about that tomorrow in the effects of toxics session, so you might want to check that out.

Q: Where is the Strait of Georgia sample site?

West: It's in pretty deep water near the border, just south and west of Blaine.

Q: Kevin, you mentioned indicators of habitat for fish and wildlife.

Anderson: We've actually spent some time trying to identify what the parameters are – what the indicators are that we ought to be looking for. We made a proposal to the Puget Sound Action Team not too long ago and we were told to go back and work more closely with some of the salmon people that have been working on habitat issues. We've given it a good shot, but we haven't followed through and identified anything yet. What we have discovered is that we don't have enough information to adequately do some of these assessments.

Q: Kevin, what about indicators for wetlands?

Anderson: Well, there are two parts to wetlands. There's quantity and there's quality. There are pieces

of information here and there, but consistently across the whole Puget Sound, it isn't enough information to provide an indicator. We find that we don't have an ongoing program to look at area – coverage. Landsat is one of the things we were looking at. And in terms of quality -- that's something that we have to work on in the future.

Q: [Unintelligible question for Bob Goodwin.]

Goodwin: It's a big debate. We could talk about regional equity. For example, Detroit absorbs all the externalities of producing automobiles for us in the Puget Sound who consume them. Isn't it fair that we should absorb some externalities in the production of transportation services for the benefit of those who live in the Midwest. I don't see a way, unless we radically alter our perceptions about what constitutes a good life and expectations about consumption, and what clothes we wear, and what we drive, and how we get to work. Without some absolutely drastic changes in those underlying cultural values, we're stuck with the messy, gritty industrial enterprises that produce that flow of goods and services. The best we can do, given that reality, which I can't see changing in the short run (and I don't think many people would want it to change in the short run), I don't see people voting for that. What we do is: we mitigate; we try to clean up at the edges; we use the police power to regulate what comes out of pipes and what goes into the air; and where we can, we try to exact some kind of public benefit out of those enterprises that are run for private profit, where it's appropriate, like many of the firms on Lake Union where you can get some public access and an amenity, and still have the flow of services. So I'm not sure that answers your question. I think it's a much broader issue that the whole of society has to grapple with, and frankly, I don't see that changing too quickly.

Q: Back in the 70's, we sort of figured that the natural environment belonged in the rural areas, out there, and that industry and development belonged in the urban areas. And when we felt we had to get something back in urban areas, we sought public access. Now we're finding there may be a shortage of habitat for these endangered species. Maybe instead of the old paradigm where we mitigated with public access so we can go look at the shoreline, we should think of trading off habitat restoration work and maybe we've got enough public access. Maybe some studies ought to be done for public access on the shorelines, and do some studies of habitat rebuilding, restoration on urban shorelines to see what we're getting back there.

A: Steve, you've raised some very good points, and I think if you look at major new activities that are being permitted in urban shorelines, like the Elliott Bay Marina, for example, the amount of effort, science investigation, and mitigation that went into that project was enormous. I'm not an expert in habitat values, but the consultant's report and monitoring indicated that there was a net increase in habitat value on that site as a result of the mitigation that went on for the project. Let me make another point. I was today reading a Sea Grant publication produced in 1975. It was quite prophetic in many respects and it coincided with the beginning of shoreline management in this state. One of the points made in this book was that we were looking at the rural shorelines as places to play and keep natural, and the urban shorelines as places for industry, jobs, and economic activity. The urban constituencies wanted to keep it that way. And maybe against the will of the rural constituents who would have loved to have had some of that economic development going on. Grays Harbor County, Pacific County, and so forth. I don't think anything's changed. I think the conclusions that they reached in 1975 are equally true today. So, the point that you're raising gets down to very fundamental, societal values, and those shift rather slowly, I think.